couraging, as in Cases 11, 18 and 27; however, Cases 15 and 23 have had no recurrence of their asthma after intranasal ionization. In Case 23 there was cutaneous reaction to cotton-seed meal and cotton-seed products, but leaving them out of the diet, along with any other measures we used, did not prevent the recurrence of asthma, while ionization did.

When a nasal septum resection is needed so badly that it is impossible to reach all parts of the nostril and nasopharynx, as is required in ionization, there will be no success until after a submucous resection.

We have followed Warwick technique in our work. Table 1 presents a brief summary of patients who have been treated by us.

T. W. Patterson Building.

BILATERAL EMPYEMA—CLOSED DRAINAGE WITH PEZZER CATHETER

By ELMER M. BINGHAM, M. D.
Riverside

THE treatment of empyema by closed drainage is the most satisfactory method in a majority of cases. Where good drainage can be accomplished by thoracotomy without resection of ribs, there is the distinct advantage of lessened surgical procedure and more rapid recovery. Where both pleural cavities must be drained, closed drainage is desirable, and is nicely accomplished by the procedure here described.

After incising the skin over the desired intercostal space, an ordinary Day suprapubic bladder punch is inserted into the pleural cavity and the trochar removed. A No. 22 Pezzer catheter, snugly fitting the cannula, is introduced with a uterine sound and the cannula withdrawn. Gentle traction gives an air-tight closure. The catheter is large enough, so that it is not easily compressed. Under ordinary circumstances, it is self-retaining. Connected with the usual siphon, it gives very satisfactory drainage.

REPORT OF CASE

A. B., a white male of seventy-two, was admitted to the Riverside County Hospital on May 5, 1934. His history indicated cardiac embarrassment since February, much worse three weeks prior to admission. He complained of dyspnea, productive cough, and swelling of his feet. On admission, temperature was 101 degrees; pulse rate, 100. Examination showed a fibrillating heart, moist râles at the bases of the lungs, and pretibial edema. Laboratory: hemoglobin, 88 per cent; white blood cells, 6,600; urine, a trace of albumen; blood Wassermann, negative.

The patient improved under digitalis and rest, temperature subsiding. At the end of the second week he began having pleuritic pains in the right chest, temperature ranging to 103 degrees. On May 21 there was evidence of fluid in the right pleural cavity, and 250 cubic centimeters of greenish pus were removed by aspiration. This on culture showed pneumococcus. Three days later 1,800 cubic centimeters of similar pus were removed by thoracentesis. On May 30 he developed pains in the left chest, followed by signs of fluid. Bilateral thoracentesis on June 4 showed a bilateral empyema, with a culture of the same organism from the left pleural cavity. Both cavities were aspirated again a week later, more to relieve his dyspnea than with the expectation of curing him. His appetite was failing, and he was irrational at times. Temperature was rarely over 100 degrees, but his white blood count was 23,000, with 91 per cent polymorphonuclears.

On June 15 a Pezzer catheter was placed in the right side, using the technique described. Siphon drainage with Dakin's irrigations was entirely satisfactory, and the accumulation of pus in the left chest was removed by aspiration. On June 26 a left thoracotomy was done. The empyema cavities were satisfactorily draining, but the patient failed steadily in strength and coöperation, on some occasions getting up in bed and disconnecting the drainage tubes. He removed the left tube June 15, and it was not replaced. The right was taken out six days later, three days before he expired.

COMMENT

In 1933 Steinke[1] collected sixty-nine cases of bilateral empyema reported in the literature since 1910. The mortality varies greatly in the different series reviewed: Scanlon[2] reported a single case with recovery; Keyes[3] reviewed forty-one cases with eight deaths; Vaughan and Schnabel[4] reported seven cases, all fatal.

Bilateral empyema is comparatively rare in adults, extremely rare in the aged. No case over seventy years old has previously been reported in the literature available.

SUMMARY

1. A case of bilateral empyema in a man of seventy-two years is reported.

2. Closed drainage with a Pezzer catheter is suggested.

Riverside County Hospital.

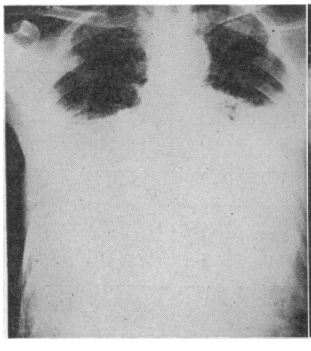

Fig. 1

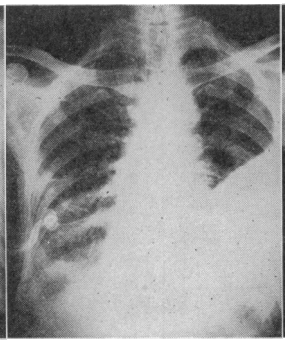

Fig. 2

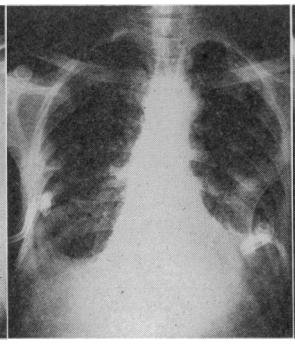

Fig. 3

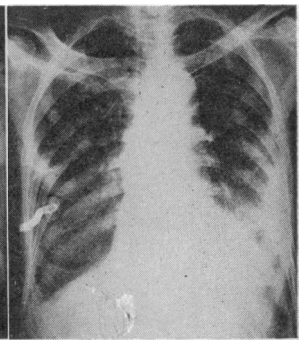

Fig. 4

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HEREDITARY DEFORMING CHONDRODYSPLASIA

REPORT OF CASES

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AND
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IT would be entirely irrelevant at this time to offer any extensive treatise on hereditary deforming chondrodysplasia, as the facts already recorded, and recently reviewed, have been thorough and extensive. Dr. Kelley Hale [1] says that this disease is looked upon by all writers as a true hereditary affection, but he feels that more data should be presented in reporting cases, in order to rest this assumption upon a firmer foundation. The exact status of the disorder can be determined only by a larger series of cases.[2]

Our primary object is to report two cases: one an adult male who gives a history of a grandparent having the same affection, and a second case, his daughter, who presents an extensive and deforming involvement of most of her skeletal system. We are, therefore, able to demonstrate an apparent hereditary factor, the disease being transmitted from a grandfather through the unaffected mother of Case 1, and then directly to his daughter, Case 2. The value of this report lies essentially in the apparent demonstration of this fact. We are aware we have no direct evidence that the grandfather's "similar trouble" was the same disease. For this information we must, of necessity, rely upon the history as obtained from the patient and his mother. Fluoroscopic examination of the mother did not show any bone pathology.

REPORT OF CASES

Case 1.—Mr. B. P., age forty years, is a short, stocky man, who came under our care following the investigation of his daughter (Case 2). He has noticed bony growths about his knees and left hip as long as he can remember. These grew slowly larger until he was about twenty-one years of age; since then there has been little or no progression, and he has never been physically impaired by this condition.

His mother's father was afflicted with a similar bony condition. His mother is apparently normal, as checked by our fluoroscopic examination.

Physical examination reveals a large, palpable bony exostosis on the medial side of the distal end of each femur and a smaller one on the left iliac crest. There is a slight ulna flexion at each wrist.

Roentgenograms were taken of his knees, hip, wrist and ankle. These show typical bony excrescences on the femur, and also involving the tibia and fibula to a lesser degree, a good-sized nodule on the left iliac crest plus a few smaller lesions scattered about on the pelvic bones. The greater trochanters are involved to a slight extent. The wrist shows an ulna shortening and enlargement of the ulna tuberosity. Likewise, there is some involvement of the distal extremity of the tibia and fibula.

* * *

Case 2.—Miss T. P., age eighteen years, the daughter of Case No. 1, is a frail girl, with outward evidence of skeletal deformities. She comes with the complaint of periodic pain in her ankles, swelling and deformities of certain joints, and a susceptibility to colds.

This patient has always been sick since babyhood with colds and ear abscesses. Her father states that "lumps" were first noticed on her ankles when she was about three years old. Swellings also became noticeable on her wrists, hands, knees and feet, and grew slowly but progressively. She was examined at the University of California Medical Clinic in 1923, when a diagnosis of congenital exostoses was made. At this time the swelling of the left ankle was so large that the bony growth was removed surgically as well as another exostosis from the lateral condyle of the left femur. She has had periodic and variable pains in various joint regions, but her ankles have always given the most trouble.

Her height is 56½ inches and weight 89 pounds. There is an appreciable shortening of both upper and lower extremities.[3] The left auditory meatus is draining and the right drum appears thickened and fibrous. There is a slight thoracic scoliosis and the chest cage is irregular. Her hands and feet are small, the fingers and toes irregular as to size and shape, and there is a marked ulna flexion at both wrists. The right forearm is deformed. There is a slight tenderness to pressure from the fifth to seventh cervical vertebrae.

Urine, blood count, and Wassermann examinations were all normal. The sputum was negative for acid-fast bacilli.

Roentgenograms show typical changes throughout practically the entire skeleton. Both ankles show marked bony changes with deformities. There is a shortening of the fibula. The foot shows a moderate number of small exostoses involving the tarsal and metatarsal bones. At the knees there are extensive involvements of the tibia, fibula, and femur. Pathological changes about the wrists are marked with a deforming ulna shortening and its resultant ulna flexion. There are changes in the articular surfaces of both ulna and radius. The carpal and metacarpal bones present moderate changes. The elbows are also deformed. On the ribs are seen numerous small exostoses extending along the entire length in some cases. The shoulders show moderate bony changes involving the clavicles, acromion, and tuberosities. The pelvic pictures show numerous nob-like bony tumors on the iliac bones, and also some involvement of the trochanters.

COMMENT

Hereditary deforming chondrodysplasia has been known to have been transmitted by an unaffected mother, and affected mothers have had affected children by different husbands. Rarely it skips a generation in affected families. It remains to be proved that an unaffected male can transmit the disease.

In these lesions the bone cortex is thinned out and irregular islands of cartilage give the impression or appearance of cysts. The epiphyses escape tumor formation, but are small or misshaped. Spongy exostoses generally develop at the metaphyses of the long bones and at ends that show the greatest per cent of growth (lower end of the femur, both ends of the tibia, the proximal end of the fibula and humerus, and the distal end of the ulna and radius). This is exemplified in our cases.